

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of protecting a protected egress link including:
connecting traffic from a service module to a first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected egress link, wherein the link layer framer includes a queue for storing the traffic; and
connecting the traffic input to the link interface of the first physical module through a pooling switch to a second physical module that is connected via a link interface of the second physical module to an alternate egress link, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through the link layer framer of the first physical module.
2. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the link interface of the first physical module comprises an optical link interface module.
3. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the link interface of the second physical module comprises an optical link interface module.
4. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the link interface of the first physical module comprises an electrical link interface module.
5. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the link interface of the second physical module comprises an electrical link interface module.
6. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the first physical module comprises a module that places the traffic in proper form for a pooling switch.
7. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the second physical module comprises a module that places the traffic in proper form

for a pooling switch.

8. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the traffic through the protected egress link and the alternate egress link have a synchronization difference smaller than 50ms.

9. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the traffic through the protected egress link and the alternate egress link behave in a manner to the user as if there is no synchronization difference between the two traffic flows.

10. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the pooling switch enables multiple logical streams to be included in one physical interface.

11. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein the pooling switch is a packet switch.

12. (Previously Presented) A method of protecting a protected egress link as in claim 1, wherein pooling switch is a time division multiplexing switch.

13. (Previously Presented) A method of protecting a protected ingress link including:
connecting traffic to a service module from a first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected ingress link, wherein the link layer framer includes a queue for storing the traffic; and

connecting the traffic through a second physical module that is connected via a link interface of the second physical module to an alternate ingress link through a pooling switch to the link interface of the first physical module, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through the link layer framer of the first physical module in the event that the traffic through the second physical module from the alternate ingress link is selected to be used.

14. (currently amended) A method of protecting a protected egress link as in claim 13, wherein the service module decides from information within an input traffic stream to the service module where to output the input traffic stream.

15. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the link interface of the first physical module comprises an optical link interface module.

16. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the link interface of the second physical module comprises an optical link interface

module.

17. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the link interface of the first physical module comprises an electrical link interface module.

18. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the link interface of the second physical module comprises an electrical link interface module.

19. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the first physical module contains a module that places the traffic in proper form for a pooling switch.

20. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the second physical module contains a module that places the traffic in proper form for a pooling switch.

21. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the traffic through the protected ingress link and the alternate ingress link have a synchronization difference smaller than 50ms.

22. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the traffic through the protected ingress link and the alternate ingress link behave in a manner to the user as if there is no synchronization difference between the two traffic flows.

23. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the pooling switch enables multiple logical streams to be included in one physical interface.

24. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein the pooling switch is a packet switch.

25. (Previously Presented) A method of protecting a protected ingress link as in claim 13, wherein pooling switch is a time division multiplexing switch.

26. (Previously Presented) A method of protecting a protected egress link including:
connecting traffic from a service module to a first pooling switch;
connecting the first pooling switch to a first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected egress link, wherein the link layer framer includes a queue for storing the traffic; and
connecting the traffic input to the link interface of the first physical module through a

second pooling switch to a second physical module that is connected via a link interface of the second physical module to an alternate egress link, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through the link layer framer of the first physical module.

27. (currently amended) A method of protecting a protected ingress link including:

connecting traffic to a service module from a first pooling switch;

connecting the first pooling switch to a first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected ingress link, wherein the link layer framer includes a queue for storing the traffic; and

connecting the traffic through a second physical module that is connected via a link interface of the second physical module to an alternate ingress link through a second pooling switch to the link interface of the first physical module, wherein the traffic in the second physical module is not processed through a link layer ~~framer~~ ~~framer~~ of the second physical module but is processed through the link layer framer of the first physical module in the event that the traffic through the second physical module from the alternate ingress link is selected to be used.

28. (Previously Presented) A method of protecting a protected egress link including:

connecting traffic from a service module to a first pooling switch;

connecting the first pooling switch to a first physical module having a link layer framer, wherein the link layer framer includes a queue for storing the traffic;

connecting the traffic through the first physical module through a second pooling switch to a second physical module that is connected via a link interface of the second physical module to a protected egress link, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed by the link layer framer of the first physical module; and

connecting the traffic through the first physical module through the second pooling switch to a third physical module that is connected via a link interface of the third physical module to an alternate egress link, wherein the traffic in the third physical module is not processed through a link layer framer of the third physical module but is processed by the link layer framer of the first physical module.

29. (Previously Presented) A method of protecting a protected egress link as in claim 28, wherein the first physical module does not include a link interface module.

30. (Previously Presented) A method of protecting a protected egress link as in claim

28, wherein 1:N protection is provided.

31. (Previously Presented) A method of protecting a protected ingress link including:
connecting traffic to a service module from a first pooling switch;
connecting the first pooling switch to a first physical module having a link layer framer,
wherein the link layer framer includes a queue for storing the traffic;

connecting the traffic through a second physical module that is connected via a link interface of the second physical module to a protected ingress link through a second pooling switch to the first physical module, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed by the link layer framer of the first physical module; and

connecting the traffic through a third physical module that is connected via a link interface of the third physical module to an alternate ingress link through the second pooling switch to the first physical module, wherein the traffic in the third physical module is not processed through a link layer framer of the third physical module but is processed by the link layer framer of the first physical module.

32. (Previously Presented) A method of protecting a protected ingress link as in claim 31, wherein the first physical module does not include a link interface module.

33. (Previously Presented) A method of protecting a protected ingress link as in claim 31, wherein 1:N protection is provided.

34. (Cancelled)

35. (New) A system for protecting a protected egress link including:
a service module;

a first physical module, wherein the first physical module comprises a link layer framer that is connected via a link interface to the protected egress link, and wherein the link layer framer includes a queue for storing traffic, and wherein traffic is connected from the service module to the first physical module;

a pooling switch; and

a second physical module, wherein the second physical module is connected via a link interface of the second physical module to an alternate egress link, and wherein traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through a link layer framer of the first physical module, and wherein traffic input to the link interface of the first physical module through the pooling switch to the

second physical module.

36. (new) A system for protecting a protected egress link as in claim 35, wherein the link interface of the first physical module comprises an optical link interface module.

37. ((new) A system for protecting a protected egress link as in claim 35, wherein the link interface of the second physical module comprises an optical link interface module.

38. (new) A system for protecting a protected egress link as in claim 35, wherein the link interface of the first physical module comprises an electrical link interface module.

39. (new) A system for protecting a protected egress link as in claim 35, wherein the link interface of the second physical module comprises an electrical link interface module.

40. (new) A system for protecting a protected egress link as in claim 35, wherein the first physical module comprises a module that places the traffic in proper form for a pooling switch.

41. (new) A system for protecting a protected egress link as in claim 35, wherein the second physical module comprises a module that places the traffic in proper form for a pooling switch.

42. (new) A system for protecting a protected egress link as in claim 35, wherein the traffic through the protected egress link and the alternate egress link have a synchronization difference smaller than 50ms.

43. (new) A system for protecting a protected egress link as in claim 35, wherein the traffic through the protected egress link and the alternate egress link behave in a manner to the user as if there is no synchronization difference between the two traffic flows.

44. (new) A system for protecting a protected egress link as in claim 35, wherein the pooling switch enables multiple logical streams to be included in one physical interface.

45. (new) A system for protecting a protected egress link as in claim 35, wherein the pooling switch is a packet switch.

46. (new) A system for protecting a protected egress link as in claim 35, wherein pooling switch is a time division multiplexing switch.

47. (new) A system for protecting a protected ingress link including:

a service module;

a first physical module, wherein the first physical module comprises a link layer framer that is connected via a link interface to the protected ingress link, and wherein the link layer framer includes a queue for storing traffic, and wherein traffic is connected from the service module to the first physical module;

a pooling switch; and

a second physical module, wherein the second physical module is connected via a link interface of the second physical module to an alternate ingress link, and wherein traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through a link layer framer of the first physical module in the event that the traffic through the second physical module from the alternate ingress link is selected to be used, and wherein traffic is connected through the second physical module.

48. (new) A system for protecting a protected egress link as in claim 47, wherein the service module decides from information within an input traffic stream to the service module where to output the input traffic stream.

49. ((new) A system for protecting a protected egress link as in claim 47, wherein the link interface of the first physical module comprises an optical link interface module.

50. (new) A system for protecting a protected egress link as in claim 47, wherein the link interface of the second physical module comprises an optical link interface module.

51. (new) A system for protecting a protected egress link as in claim 47, wherein the link interface of the first physical module comprises an electrical link interface module.

52. ((new) A system for protecting a protected egress link as in claim 47, wherein the link interface of the second physical module comprises an electrical link interface module.

53. (new) A system for protecting a protected egress link as in claim 47, wherein the first physical module contains a module that places the traffic in proper form for a pooling switch.

54. (new) A system for protecting a protected egress link as in claim 47, wherein the second physical module contains a module that places the traffic in proper form for a pooling switch.

55. (new) A system for protecting a protected egress link as in claim 47, wherein the traffic through the protected ingress link and the alternate ingress link have a synchronization difference smaller than 50ms.

56. (new) A system for protecting a protected egress link as in claim 47, wherein the traffic through the protected ingress link and the alternate ingress link behave in a manner to the user as if there is no synchronization difference between the two traffic flows.

57. (new) A system for protecting a protected egress link as in claim 47, wherein the pooling switch enables multiple logical streams to be included in one physical interface.

58. (new) A system for protecting a protected egress link as in claim 47, wherein the pooling switch is a packet switch.

59. (new) A system for protecting a protected egress link as in claim 47, wherein pooling

switch is a time division multiplexing switch.

60. (new) A system for protecting a protected egress link including:

- a service module;

- a first pooling switch, wherein traffic is connected from the service module to the first pooling switch;

- a first physical module, wherein the first pooling switch is connected to the first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected egress link, wherein the link layer framer includes a queue for storing the traffic; and

- a second pooling switch;

- a second physical module, wherein the traffic input to the link interface of the first physical module is connected through the second pooling switch to the second physical module that is connected via a link interface of the second physical module to an alternate egress link, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through the link layer framer of the first physical module.

61. (new) A system for protecting a protected ingress link including:

- a service module;

- a first pooling switch, wherein traffic is connected to the service module from the first pooling switch;

- a first physical module, wherein the first pooling switch is connected to a first physical module having a link layer framer that is connected via a link interface of the first physical module to the protected ingress link, wherein the link layer framer includes a queue for storing the traffic; and

- a second physical module, wherein the traffic is connected through the second physical module that is connected via a link interface of the second physical module to an alternate ingress link through a second pooling switch to the link interface of the first physical module, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed through the link layer framer of the first physical module in the event that the traffic through the second physical module from the alternate ingress link is selected to be used.

62. (new) A system for protecting a protected egress link including:

a service module;

a first pooling switch, wherein traffic is connected from a service module to a first pooling switch;

a first physical module, wherein the first pooling switch is connected to the first physical module having a link layer framer, wherein the link layer framer includes a queue for storing the traffic;

a second pooling switch, wherein the traffic is connected through the first physical module through the second pooling switch to a second physical module that is connected via a link interface of the second physical module to a protected egress link, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed by the link layer framer of the first physical module; and

a third physical module, wherein connecting the traffic is connected through the first physical module through the second pooling switch to the third physical module that is connected via a link interface of the third physical module to an alternate egress link, wherein the traffic in the third physical module is not processed through a link layer framer of the third physical module but is processed by the link layer framer of the first physical module.

63. (new) A system for protecting a protected egress link as in claim 62, wherein the first physical module does not include a link interface module.

64. (new) A system for protecting a protected egress link as in claim 62, wherein 1:N protection is provided.

65. (new) A system for protecting a protected ingress link including:

a service module;

a first pooling switch, wherein traffic is connected to the service module from the first pooling switch;

a first physical module, wherein the first pooling switch is connected to the first physical module having a link layer framer, wherein the link layer framer includes a queue for storing the traffic;

the second physical module, wherein the traffic is connected through the second physical module that is connected via a link interface of the second physical module to a protected ingress link through a second pooling switch to the first physical module, wherein the traffic in the second physical module is not processed through a link layer framer of the second physical module but is processed by the link layer framer of the first physical module; and

a third physical module, wherein the traffic is connected through the third physical module that is connected via a link interface of the third physical module to an alternate ingress link through the second pooling switch to the first physical module, wherein the traffic in the third physical module is not processed through a link layer framer of the third physical module but is processed by the link layer framer of the first physical module.

66. (new) A system for protecting a protected ingress link as in claim 65, wherein the first physical module does not include a link interface module.

67. (new) A system for protecting a protected ingress link as in claim 65, wherein 1:N protection is provided.